AMENDMENTS TO THE CLAIMS

IN THE CLAIMS:

1-5. (canceled)

6. (new) A conductive organic material comprising an oligomer of alternating ethynyl and thienyl groups.

7. (new) An oligomer of claim 6, wherein C3 of the thienyl groups is each independently substituted with H or an alkyl group.

8. (new) An oligomer of claim 6, wherein the oligomer has two ends, and one end of the oligomer is functionalized at C2 with an SH group.

9. (new) An oligomer of claim 8, wherein the SH group is adhered to a gold or palladium surface.

10. (new) An oligomer of claim 6, wherein the oligomer has two ends, and one end of the oligomer has a thienyl group that is functionalized at C2 with a COOH group.

11. (new) An oligomer of claim 10, wherein the COOH group is adhered to an iron or aluminum surface.

12. (new) An oligomer of claim 6, wherein the oligomer has two ends, and one end of the oligomer has a thienyl group that is functionalized at C2 with a phosphine group.

13. (new) An oligomer of claim 1, wherein the oligomer has two ends, and one end of the oligomer has a thienyl group that is functionalized at C2 with a halogen.

14. (new) An oligomer of claim 6, wherein the oligomer has two ends, and one end of the oligomer has a thienyl group that is functionalized at C2 with a bipyridyl group.

15. (new) An oligomer of claim 6, wherein the oligomer has two ends, and one end of the oligomer has an ethynyl group that is functionalized with a trimethylsilane group.

16. (new) An oligomer of claim 6, wherein the oligomer is air and light stable.

17. (new) An oligomer of claim 6, wherein the oligomer is freely soluble in organic solvents.

18. (new) An oligomer of claim 6, wherein the oligomer has a length of about 100 Å.

19. (new) An oligomer of claim 6, wherein the oligomer has a conductivity of about 100 to 200 $\Omega^{-1}cm^{-1}$.